



## CITY OF LODI

## COUNCIL COMMUNICATION

AGENDA TITLE: Approve specifications and authorize advertisement for bids for 20,000 feet of #1/0 600-volt underground triplex (EUD)

MEETING DATE: October 16, 2002

PREPARED BY: Electric Utility Director

RECOMMENDED ACTION: That the City Council approve the specifications and authorize advertisement for bids for 20,000 feet of #1/0 underground triplex conductor for the Electric Utility Department.

BACKGROUND INFORMATION: This 600-volt triplex is being sourced in preparation for projected needs in 2003. With an expected 10-12 week leadtime, an order placed in early December would be delivered in late February or early March, 2003, for work orders expected to be issued in early Spring.

Some of the residential developments which will require #1/0 triplex are Arcadia Place, Tienda Place, Century Meadows 3 Units 4 and 5, Century Meadows 4 Units 1 and 2, Woodhaven Park Unit 3, and Almondwood Place. The balance of the order will be placed into inventory for additional service connections expected during 2003.

FUNDING: Electric Utility Department Operating Fund,  
2001-2003 Financial Plan and Budget.  
Estimated Cost: \$14,000

BID OPENING: November 11, 2002

Alan N. Vallow, Electric Utility Director

Prepared by Joel Harris, Purchasing Officer

cc: Manager, Engineering and Operations

APPROVED: \_\_\_\_\_

  
H. Dixon Flynn -- City Manager

# **City of Lodi**

## **Equipment Specifications**

### **600-VOLT XLPE TRIPLEX CABLE**

#### **1.0 GENERAL**

Cable furnished under these specifications shall be limited to cross-linked polyethylene insulated cable rated 600 volts and suitable for installation in ducts or for direct burial in earth, in wet or dry locations, with normal conductor temperatures up to 90 degrees C. Cables furnished shall meet the requirements of the applicable NEMA, ICEA, AEIC, and ASTM standards, latest edition thereof, unless otherwise noted in this specification.

#### **2.0 CONDUCTOR**

The conductor shall be aluminum alloy, EC Grade, ½ to ¾ hard, Class B stranding.

#### **3.0 INSULATION**

Phase conductor insulation shall be single-pass, black, cross-linked polyethylene. The neutral conductor shall have yellow XLPE insulation or black XLPE insulation with yellow extruded stripes.

#### **4.0 ASSEMBLY**

The assembled cable shall consist of phase and neutral conductors twisted together with a lay not less than 50 nor more than 60 times the outside diameter of one of the phase conductors. All cable ends shall be sealed to prevent the entrance of moisture.

#### **5.0 IDENTIFICATION**

Each conductor shall have a permanent marking showing the manufacturer's name, voltage rating, conductor size and type of insulation. Additionally, one leg of the triplex shall be marked with sequential footage marks at least every two feet.

#### **6.0 TESTING AND GUARANTEE**

Testing of cable shall be performed according to procedures set forth by the ICEA, AEIC and ASTM. Certified copies of Pass/Fail test results shall be supplied to the City at the time of shipment. Any cable found defective either upon inspection, testing or installation will be returned at the manufacturer's expense.

#### **7.0 SPECIFIC REQUIREMENTS**

Any conditional bids such as "Subject to Availability in Stock" will be rejected as non-responsive.

#### **8.0 SHIPPING**

Cable ends shall be adequately sealed with a water-seal type material and plastic end caps secured to prevent the penetration of moisture. There shall be no water in the stranded conductor of the cable when reel is shipped. All shipments shall be prepaid, FOB delivered to the City of Lodi, Lodi, CA. Reels shall be shipped upright.

## 9.0 REELS

### 9.1 MAKEUP

The specified conductor shall be supplied on NEMA standard reels and in accordance with Table 1 as shown below.

TABLE 1

CONDUCTOR SIZE PHASE (NEUTRAL)	CODE WORD	MATERIAL	NEMA STANDARD REEL CODE NO.
#2 (#2) AWG	Ramapo / YES	Aluminum	3624
#1/0 (#1/0) AWG	Bergen / YES	Aluminum	3624
350kcmil (#4/0)	Wesleyan / YES	Aluminum	5432 or 7236

### 9.2 PACKAGING

Each reel shall have adequate protective covering across the flanges, such covering to consist of wood members from flange to flange covering the entire circumference of the reel (lagging). The lagging shall be nailed to the flange perimeters and shall be further secured with at least two steel bands around the reel. Each end of the cable shall be firmly secured to the reel.

### 9.3 MARKING

Each reel shall be marked with a durable label securely attached to a flange of the reel and plainly marked stating the destination, the purchaser's order number, the shipping length of cable on reel, type and size of conductors, insulation type and thickness, voltage rating and manufacturer's identification number, and tare weight of the reel.